AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph on page 5, lines 28-33 through page 6, lines 1-15 with the following amended paragraph:

Referring to FIGS. 6A-6C, after reading the image data, image processor 10 extracts a density map 74 (FIG. 6C) from original image 12 (step 72). To produce density map 74, image processor scans an analysis line 76, which is oriented along an analysis axis 78, across original image 12 in a scanning direction 80. The pixel shading (or darkness) values along analysis line 76 is simulated in density map 74 by a plurality of halftone dots (represented by "x" in FIG. 6B). The halftone dots are arranged according to the original image gray level distribution of shading values along analysis axis 76. That is, the density of halftone dots tracks the shading of original image 12 so that the dot density is relatively high in darker regions of original image 12 and is relatively low in lighter regions of original image 12. The halftone dots are spaced apart in accordance with the magnitude of gray level distribution curve 82 along analysis line 76. The halftone dot spacing is small, i.e., close, in a relatively dark region 84, medium in a medium intensity region 86, and large, i.e., far, in a relatively bright region 88 of original image 12. The relative halftone dot spacing is selected to track the local gray level of original image 12 by spacing the halftone dots so that the area under gray level distribution curve 82 between any two adjacent halftone dots is substantially the same. Thus, the areas under gray level distribution curve 82 in zones 90, 92 and 94 — which are defined between adjacent pixels in mid-density region 86, high density region 84 and low density region 88, respectively — are the substantially the same.

Please replace the paragraph on page 6, lines 16-20 with the following amended paragraph:

Density map 74, Fig. 6C, is [[may be]] produced by sampling pixel values of original image 12. The sampling rates in the analysis direction 78 and in the scanning direction may be the same or different. In the present embodiment, density map 74 is generated by sampling original image .12 at a rate of 1/3 in the analysis direction 78 and at a rate of 1/3 in the scanning direction 80.

Please replace the paragraph on page 6, lines 21-31 through page 7, lines 1-18 with the following amended paragraph:

Referring back to FIG. 5 and to FIGS. 7A and 7B, warping control points are computed based upon the vertical distribution of halftone dots in density map 74 as follows (step 100). A search window 102 is centered around a pixel 104 of density map 74. In one embodiment, search window 102 encompasses a vertical array of pixels that is 1 pixel wide and 2b + 1 pixels long, where b is an integer. In the present embodiment, search window 102 encompasses a 1 x 11 pixel array (i.e., b = 5). The spacings ~~spacing~~ between the halftone dots within search window 102 and pixel 104 are summed to obtain a warping displacement value for the location of pixel 104. Thus, the warping displacement value (d) for the location of pixel 104 may be computed as follows:

$$d = (-5) + (-3) + (-1) + 3 + 4 = -2$$

which corresponds to a vertical displacement of two pixel locations above pixel 104. Search window 102 is [[may be]] scanned across density map 74 to obtain a set of warping displacement values corresponding to a set of lattice pixel locations. In particular, warping displacement values preferably are computed for lattice pixels located at the intersections of a series of space apart horizontal scan lines and a series of spaced apart vertical lines. As used herein, the term "lattice pixel location" refers to the pixel locations at the intersections of the horizontal and vertical scan lines. Search window 102 preferably is scanned across density map 74 along horizontal scan lines in non-overlapping scan zones. For example, in the present embodiment, adjacent scan lines of window 102 are spaced apart by ten (i.e., 2 b) pixels, resulting in a total of fifty-three scan lines (i.e., 512/10 = 51.2 plus two boundary scan lines). In other embodiments, the number and, consequently, the spacing between horizontal scan lines may be different. The spacing between the vertical scan lines also may vary. In the present embodiment, the vertical scan lines are spaced apart by thirty pixels, resulting in nineteen vertical scan lines (i.e., 5 12/30 = 17.1 plus two boundary scan lines). A set of warping control points is generated by displacing the lattice pixel locations in accordance with their corresponding warping displacement values.

Please replace paragraph beginning on page 10, line 2 with the following amended paragraph:

$$V\_dir(x, y) = \Sigma^{2}_{j=-2} \Sigma^{2}_{i=-2} w\_dir(i, j) \cdot G\_dir(x-i, y-j) \qquad [[(4)]] \ (6)$$